

BELYAYEVSKIY, A.I.; GUR'YAN, Yu.A.

The 11-counter apparatus for $\gamma\gamma$ -angular correlation measurements. Izv.AN SSSR.Ser.fiz. 25 no.10:1291-1301 0 '61.
(MIRA 14:10)

1. Fiziko-tehnicheskii institut im. A.F.Ioffe Akademii nauk SSSR.
(Gamma-ray spectrometer)

An 11-counter instrument for...

27892
S/048/61/025/010/002/003
B104/B112

113, 234 (1959); Johansson B., Nucl. Instrum., 1, 274 (1957).

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk
SSSR (Physicotechnical Institute imeni A. F. Ioffe of the
Academy of Sciences USSR)

Fig. 1. Block diagram of the instrument. Legend: (1) - (11) $\Phi\Delta Y-13$
(FEU-13) photomultiplier with cathode follower (KKH (KKP)); (A) automatic
tuning and stabilizing block; (B) diode matrix; (C) controlled Park
triggers; (D) recording device; (E) triple coincidence selector;
(F) anti-coincidence circuit; (G) high-speed coincidence circuit;
(H) triple coincidence circuit; (I) single channel analyzers.

Card 3/4

X

27892

S/048/61/025/010/002/003
B104/B112

An 11-counter instrument for...

circuits are connected to 5 rails. Each of them corresponds to a certain angle of divergence. The matrix block, the high-speed coincidence circuits, the block of controlled triggers, and the block of automatic tuning and stabilizing are discussed in detail. For amplitude and time selection of the pulses, two ordinary channel fast-slow coincidence circuits are used in the diode matrix. The instrument was tested with Se^{46} (892-1118 kev cascade) and Na^{22} sources (511 kev annihilation quanta-1270 kev transition). The results obtained with the Se^{46} source coincide with the theoretical curve. The experimental points obtained with the Na^{22} source lie on a straight line. The efficiency of the instrument described is 110 times higher than that of a two-counter instrument. A. V. Kulikov is mentioned. The authors thank G. S. Vil'dgrube for supplying 12 $\Phi 3Y-13$ (FEU-13) photomultipliers, and I. F. Bugakov for help with assembling. There are 7 figures and 6 references: 1 Soviet and 5 non-Soviet. The three most recent references to English-language publications read as follows: Park, J., Scient. Instrum., 32, 257 (1956); Jacobson B. A., Henley E.M., Phys.Rev.,

Card 2/4

21.6000

27892

S/048/61/025/010/002/003
B104/B112

AUTHORS:

Belyayevskiy, A. I., and Gur'yan, Yu. A.

TITLE:

An 11-counter instrument for $\gamma\gamma$ -angular correlation measurement

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25, no. 10, 1961, 1291 - 1301

TEXT: By the 11-counter instrument described coincidence measurements in five angles (163° , 147° , 130° , 114° , 98°) may be carried out simultaneously. The coincidence of two γ -quanta emitted in a disintegration cascade is counted in an arbitrary combination of counters, and is recorded by a mechanical counter. 55 high-speed coincidence circuits and 22 single-channel analyzers are necessary for this purpose. The resolving time of the instrument is $\sim 4 \cdot 10^{-8}$ sec. In Fig. 1, a block diagram of the instrument is shown. The maximum amplitude of the pulses delivered to the diode matrix is 30-50 v. Therefore, the amplitude and time selection in the diode matrix is carried out without amplification. In the diode matrix, the outputs of the above mentioned 55 coincidence

Card 1/4

X

A Lesser-Pulse Selector

SOV/120-59-2-30/50

lesser input. Absence of distortion in the amplitude distribution is guaranteed by linear mixing in valves Λ_1 , Λ_2 , Λ_3 , and exact compensation of currents i_1 and i_3 ; if the inputs are of equal amplitude there is no output at all. The resolving time of the coincidence circuit of Fig 1 can be very short (about 0.01μ) but when working with pulses about 1μ long a supplementary fast coincidence circuit may be needed to avoid distortion. In Fig 2 the mixer circuit has been replaced by an alternative arrangement in which current compensation can be adjusted by varying the values of R_1 and C_1 .

Card 2/2

There are 2 figures and 3 references, of which 2 are Soviet and 1 is English.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR (Physico-Technical Institute, Ac.Sc. USSR)

SUBMITTED: March 29, 1958

AUTHOR: Belyayevskiy, A.I. SOV/120-59-2-30/50
TITLE: A Lesser-Pulse Selector (Selektor men'shego impul'sa)
PERIODICAL: Priory i tekhnika eksperimenta, 1959, Nr 2,
pp 111 - 112 (USSR)
ABSTRACT: The circuit described may be used for studying cascade reactions in atomic nuclei, particularly in those cases where pulses are selected on an amplitude basis. The arrangement combines the property of a linear gate controlled by one input pulse directly (that is without the aid of a trigger and delay line) with the properties of binary coincidence circuits. It has been pointed out in Ref 2 that the number of analysers required for selecting two spectral lines may be reduced from 18 to 10 by using a summing circuit or a greater-pulse selector; by combining these two circuits to form a lesser-pulse selector (l.p.s.) the number of analysers may be reduced to two. The basic features of an l.p.s. are shown in Fig 1 when there are two counters; the more general arrangement is that of Fig 2. If the greater pulse is applied at 1 in Fig 1, and the lesser at 2, then a pulse appears which is proportional to the

Card 1/2

12-3-5/41

A Method of Measuring the γ - γ Angular Correlation.

instead of one; (2) measurements are carried out at 4 angles simultaneously; (3) the counters are sensitive to more than one γ line. There are 2 figures, 1 table and no references.

ASSOCIATION. Physico-Technical Institute AS USSR
(Fiziko-tekhnicheskii institut AN SSSR)

SUBMITTED: December 24, 1956.

AVAILABLE: Library of Congress.

Card 5/3 1. Counters--(Angular)--Correlation

100-1-1/00

A Method of Measuring the γ - γ Angular Correlation.

and/or equal the $\epsilon(\theta)$ are similarly affected. A method is described whereby $\epsilon(\theta)$ is independent of variations in the e_i . The general efficiency of the instrument increases, at the same time, by some tens of times compared with a single channel device. The multichannel instrument consists of fixed counters distributed round a circle and at angles φ to each other. The number of the counters is $n = 360^\circ/\varphi$ and measurements are carried out at angles $\theta = m\varphi$ where $m = 1, 2, 3$ etc. The principle of the method is illustrated in Fig.1 showing 9 scintillation counters ($\varphi = 40^\circ$, $m = 1, 2, 3$ and 4). As can be seen from this figure the number of double coincidences at $\theta = 40^\circ$ is counted not by one pair of counters but by all such pairs. Similar considerations apply to the other angles θ . Fig.1 is a simplified diagram. In fact 36 coincidence circuits were employed. It is shown that using this setup the efficiency of coincidence counting does not change by more than hundredths of a percent. Compared with the moveable counter instrument using a single channel the efficiency (in an example given in this paper) increases by a factor of 72. The apparatus has the following advantages: (1) the

Card 2/3 coincidences at each angle are counted by 9 pairs of counters

BELYAYEVSKIY, R.I.

1-57-54

AUTHOR: Belyayevskiy, A.I.

TITLE: A Method of Measuring the γ - γ Angular Correlation. (Metod izmereniya $(\gamma$ - $\gamma)$ -uslovoy korrelyatsii)

LITERATURE: Pribury i Tekhnika Eksperimenta, 1997, no 3, p. 27-31, (USSR)

ABSTRACT: To measure γ - γ angular correlations one usually employs a single channel apparatus consisting of 2 counters measuring the number of coincidences $n_c(\theta)$ at different angles θ between the γ quanta, the angle θ being determined by the angle between the axes of the counters. The disadvantage of such a scheme is that one requires high stability, and studies of angular correlation of shortlived nuclei are often impossible. If instead of a single channel instrument one uses a multichannel one, in which instead of a moving counter one has a series of fixed counters at some angles, then the efficiency of the coincidence scheme $\epsilon(\theta)$ is equal to $\epsilon_1\epsilon_i$ where ϵ_1 and ϵ_i are the efficiencies of the first and i th counters whose axes are at the angle θ . It follows that if the ϵ_i are all constant

1 of 1/2

BELYAYEVSKIY, A.G.

GEL'MAN, M.I.; BIRANIN, V.G.; BELYAYEVSKIY, A.G.; ANDREYEV, A.I.;
BEZMENOV, V.P.; PETROV, V.I.

On new technological processes. Der.prom.4 no.1:19-21 Ja'55.
(MLRA 8:3)

1. Ust'-Izhorskiy fanernyy zavod.
(Ust'-Izhora--Plywood)

SOLOMIN, A.N., kand.med.nauk; BELYAYEVSKIY, A.D. (Rostov-na-Donu)

Use of a prosthesis prepared from AKR-7 plastic for replacement of a complicated defect of the anterior paranasal sections of the skull. Vop. neirokhir. 28 no.6:47 N-D '64.

(MIRA 18:4)

MELIK-PASHAYEV, V.S.; KOCHETOV, M.N.; KUZNETSOV, A.V.; DOLINA, L.P.;
Prinimali uchastiye: BELYAYEVSKIY, A.A.; LISUNOV, V.R.;
NEYMAN, V.Ye.; CHERNOGLAZOVA, T.Ya.; MAMUNA, V.N.; ZHDANOV,
M.A., prof., red.; PERSHINA, Ye.G., ved. red.; YAKOVLEVA,
Z.I., tekhn. red.

[Methods for determining the parameters of oil and gas pools
for appraising their reserves in platform-type fields using
the volumetric method] Metodika opredeleniia parametrov za-
lezhei nefiti i gaza dlia podscheta zapasov ob"emnym metodom;
na mestorozhdeniakh platformennogo tipa. [By] V.S.Melik-
Pashaev i dr. Pod red.M.A.Zhdanova. Moskva, Gostoptekh-
izdat, 1963. 269 p. (MIRA 16:5)

(Oil reservoir engineering)

COUNTRY :
CATEGORY :

H

ABS. JOUR. : RZhKhim., No 17, 1959, No. 62966

AUTHOR :
INSTITUTE :
TITLE :

ORIG. PUB. :

ABSTRACT : initial boiling point; 166° - 1%; 212° - 5%;
Con'd 245° - 10%; 290° - 20%; 305° - 30%. It is possible to separate M into 2 fractions in vacuum: I fraction of $\leq 350^\circ$ boiling point and II fraction of 350 - 400° boiling point. M may be employed as a softener in the rubber mixtures instead of fuel oil or instead of oleic acid (up to 10% basis fuel oil) without impairing technological properties of the mixtures and physico-chemical property requirements of vulcanizing agents. As an agent promoting thermo-swelling in the manufacture of

Card: 2/3

H - 138

COUNTRY : BULGARIA
 CATEGORY : Chemical Technology. Chemical Products and Their Applications. Caoutchouc. Natural and Synthetic*
 ABS. JOUR. : RZhKhim., No 17, 1959, No. 62965
 AUTHOR : Gerassimov, M.; Belyayevski, V.; Radaykov, A.
 INSTITUTE : -
 TITLE : A New Agent for Thermo-Swelling and A Softener for the Rubber Industry.
 ORIG. PUB. : Ratsionalizatsiya (Bulg.), 1958, 8, No 10, 20-23

ABSTRACT : A possibility of utilization of the oxidized oil (M) by-products, formed in the asphalt manufacture, in the rubber industry was investigated. This oxidized oil (M) has the following properties: d_{4}^{20} - 0.9336; n - 1.5108; kinematic viscosity at 20° - 134.25 Cst, at 50° - 23.71 Cst, at 100° - 4.88 Cst; acid number - 7.58; iodine number - 42.6; flash point - 163°; coke number - 0.5. Fractional distillation by Engler: 150°

*Rubber.

Card: 1/3

BOBOVICH, Ya.S.; BELYAYEVSKAYA, N.M.

Relation between some spectral characteristics and the reactivity
of aromatic compounds. Part 1. Opt. i spektr. 19 no.2:
198-205 Ag '65. (MIRA 18:8)

BELIAYEVSKAYA, M.I.

Make broader use of bank credit for the introduction of new equipment. Rech.transp. 17 no.11:8-11 N '58. (MIRA 11:12)
(Inland water transportation--Finance)

ACC NR: AP7002405

the high-temperature range it moves from the periphery toward the center; this is due to the inhibition of the gasification process by carbon monoxide. The reduction isotherms are adequately described by the equation $[1 - (1 - \alpha)^{1/3}] = K\tau$, where α is the degree of reduction in fractions of unity, τ the time, and K the rate constant of the chemical reaction. The reduction of calcium tungstate was found to be accelerated by an admixture of calcium chloride; the mechanism of action of this admixture is discussed. Orig. art. has: 8 figures, 2 tables and 4 formulas.

SUB CODE: 07/ SUBM DATE: 19Mar66/ ORIG REF: 019/ OTH REF: 007

Card 2/2

ACC NR: AP7002405

SOURCE CODE: UR/0363/66/002/012/2204/2212

AUTHOR: Zelikman, A. N.; Belyayevskaya, L. V.; Bobylev, V. M.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: Kinetics of reduction of calcium tungstate and molybdate and of their isomorphous mixture with carbon

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 12, 1966, 2204-2212

TOPIC TAGS: chemical reduction, calcium compound, tungstate, molybdate

ABSTRACT: The kinetics of reduction of CaWO_4 and CaMoO_4 with carbon were studied in nitrogen at 1000-1210 and 900-1210°C respectively; an isomorphous mixture of the two compounds was reduced at 1000-1210°C. The reduction of these salts to tungsten and molybdenum was found to take place without intermediate formation of compounds of lower valences. From the values of activation energies of the reduction reactions it follows that up to 1110°C for CaWO_4 and $\text{CaWO}_4 + \text{CaMoO}_4$ and up to 1000°C for CaMoO_4 , the rate-determining step of the process is the desorption of carbon monoxide from the carbon surface ($E = 54-105$ kcal/mole). In the high-temperature range, the reaction is determined by the first step of gasification ($E = 22-33$ kcal/mole). In the low-temperature range, the reduction proceeds throughout the volume of the briquet, whereas in

Card 1/2

546.41'776+546.26
UDC: 546.41'786+546.26

L 46889-66

ACC NR: AP6027194

molybdates which melt congruently. Orig. art. has: 1 figure and 1 table. 0

SUB CODE: 07/ SUBM DATE: 07Jul65/ ORIG REF: 002/ OTH REF: 006

Card 2/2 *pls*

L 46889-66 EMT(m)/EWP(t)/ETI IJP(c) JD
 ACC NR: AP6027194 (A, N)

SOURCE CODE: UR/0078/66/011/008/1989/1991

AUTHOR: Kunev, D. K.; Belyayevskaya, L. V.; Zelikman, A. N.

ORG: none

TITLE: The systems MoO_3 - CaMoO_4 , MoO_3 - PbMoO_4 and MoO_3 - ZnMoO_4

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 8, 1966, 1989-1991

TOPIC TAGS: molybdate, calcium compound, lead compound, zinc compound, phase diagram,
 x ray diffraction analysis

ABSTRACT: Thermographic and microscopic analyses were used to investigate the systems MoO_3 - CaMoO_4 , MoO_3 - PbMoO_4 and MoO_3 - ZnMoO_4 . X-ray diffraction was also used to study the MoO_3 - CaMoO_4 system. The heating and cooling curves were taken with a Kurnakov pyrometer with differential recording. The MoO_3 - CaMoO_4 system has one eutectic at 25 wt. % CaMoO_4 melting at $727 \pm 3^\circ\text{C}$. The MoO_3 - PbMoO_4 system has one eutectic at 49 wt. % PbMoO_4 melting at 670°C . PbMoO_4 melts without decomposing at 1063°C . The MoO_3 - ZnMoO_4 system has one eutectic at 42 wt. % ZnMoO_4 melting at 705°C . ZnMoO_4 melts with decomposition via a peritectic reaction at 1000°C . No acid molybdates were found in the systems studied. Some data on MoO_3 - MeMoO_4 systems (where $\text{Me} = \text{Cu}, \text{Fe}, \text{Pb}, \text{Zn}, \text{Ca}$) are presented. All these systems are of eutectic type. Lead, iron and calcium molybdates melt without decomposing, whereas zinc and copper molybdates melt with decomposition via a peritectic reaction and have lower heats of formation (from the oxides) than

Card 1/2

UDC: 541.123.2:546.776

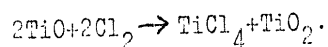
Investigation of the chlorination processes... 3/528/61/000/005/007/010
3040/D113

For separating the carbides of other elements, and its composition (in %) was 46.88 Ti, 13.91 Nb, 0.70 Ta, 2.62 Si, 6.84 C_{fixed}, 12.32 C_{free}, 3.76 H, 3.56 O, and 7.41 other elements. The constants of TiC chlorination rate were higher than of NbC, particularly at 800°C, and the chlorination rate of Ti-Nb carbide from loparite was close to the chlorination rate of pure TiC. The maximum necessary time for chlorination of carbide particles of different size at different temperatures has been determined. Chlorination of Ti-Nb carbide in the boiling layer was studied in a small laboratory furnace and in one of larger size, and proved feasible with the use of chlorine as well as chlorine with air. The TiCl₄ output rate from powder carbide in the boiling layer proved to be more than 10 times higher than in direct chlorination of oxides or concentrated ore in mixture with carbon. The chlorination degree of Ti-Nb carbide in the boiling layer amounted to 97-99%. There are 10 figures.

Card 3/3

Investigation of the chlorination processes ... S/598/61/000/005/007/010
DO40/D113

cented. Titanium carbide, and titanium and niobium nitrides chlorinated fastest of all compounds, starting to chlorinate at 200°C. Active reaction of Nb carbide with chlorine was observed at 400°C, and of silicon carbide from above 600°C. Chlorination of TiO at a perceptible rate started from 300°C. In the range 400-700°C, the TiO chlorination degree was 50%, which is explained by the reaction



In the presence of carbon, TiO chlorinated much faster than a mixture of TiO₂ with carbon. Titanium carbide was prepared with lamp soot in a hydrogen atmosphere in a carbon-tube furnace at 2000°C, and niobium carbide in the same way at 1700-1800°C, and pressed into cakes with 110 kg/cm² and 325 kg/cm² pressure at 2150-2200°C and 2700-2750°C respectively. The chlorination of these carbides was accompanied by the formation of a graphite layer which did not affect the chlorination rate at 400°C but caused some inhibition at 600° and 800°C. Ti-Nb carbide was produced by carbidization of loparite concentrate with subsequent washing in hydrochloric acid

Card 2/3

3/598/61/000/005/007/010
D040/D113

AUTHORS: Meyerson, G.A., Zelikman, A.N., Belyayevskaya, L.V., Tseytina, N.Ya., and Kirillova, G.F.

TITLE: Investigation of the chlorination processes of titanium and niobium carbides, complex titanium-niobium carbide, and some other compounds

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego splavy, no. 5, Moscow, 1961. Metallurgiya i khimiya titana, 107-168

TEXT: The authors studied the reactions of titanium carbides and nitrides, niobium, complex Ti-Nb carbide, TiO and silicon carbide with chlorine in chlorination for obtaining $TiCl_3$. The experiments were conducted in view of the advantageous technological properties of titanium carbide and titanium carbonitride, the possible future use of the boiling layer for chlorinating them, and because precarbonization of rutile and ilmenite is used in foreign titanium production practice. Generalized results of the studies are given and a detailed illustrated description of the experimental equipment pre-

Card 1/3

Processing of titanium-niobium ...

S/137/62/000/005/026/150
A006/A101.

of Ti, Ni, Ta carbides) is chlorinated at 800°C with subsequent separation of chlorides in condensers and cleaning by rectification. Results of investigations are presented.

G. Svodtseva

[Abstracter's note: Complete translation]

Card 2/2

S/137/62/000/005/026/150
A006/A101

AUTHORS: Meyerson, G. A., Zelikman, A. N., Belyayevskaya, L. V., Tseytina, N. Ya., Kirillova, G. F.

TITLE: Processing of titanium-niobium rare-earth complex raw material by carbidization and chlorination

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 13, abstract 5G80 ("Sb. nauchn. tr. In-t tsvetn. met. im. M. I. Kalinina", 1960, v. 33, 175-185)

TEXT: The processing of Ti-Nb raw material by the method of carbidization and chlorination was conducted on a laboratory and enlarged scale. The method consists in heating a mixture of the concentrate with coal in an electric furnace at 1,800 - 1,900°C. The complex raw material elements are then transformed into carbides and divided into the following two groups according to their properties: 1) TiC, NbC, TaC, SiC - strong refractory compounds, and 2) carbides of rare earth elements Ca, Na, Al and Fe, dissolving in diluted acids. Processing of a carbidization product with 10% HCl makes it possible to separate all soluble elements from refractory carbides. The washed and dried residue (solid solution

Card 1/2

MEYERSON, G.A.; ZELIKMAN, A.N.; BELYAYEVSKAYA, L.V.; TSEYTINA, N.Ya.;
KIRILLOVA, G.F.

Studying conditions of the chlorination of titanium-niobium
carbide. Izv. vys. ucheb. zav.; tsvet. met. 3 no.5:108-115
'60. (MIRA 13:11)

1. Krasnoyarskiy institut tsvetnykh metallov. Kafedra metallurgii
redkikh metallov.
(Titanium-niobium carbide) (Chlorination)

ABASHIN, Georgiy Ivanovich; POGOSYAN, Grigoriy Muradovich; KREYN, O.Ye.,
retsenzent; BELYAYEVSKAYA, L.V., retsenzent; SINYAKOV, A.F.,
retsenzent, red.; KAMAYEVA, O.M., red.izd-va; KARASEV, A.I.,
tekhn.red.,

[Tungsten and molybdenum production processes] Tekhnologiya polu-
cheniya vol'frama i molibdena. Moskva, Gos.nauchno-tekhn.izd-vo
lit-ry po'chernoi i tsvetnoi metallurgii, 1960. 259 p.

(Tungsten--Metallurgy) (MIRA 13:10)
(Molybdenum--Metallurgy)

Bol'shakov, K. A. BELYAYEVSKAYA, L. V.

KISLYAKOV, Igor' Pavlovich; BOL'SHAKOV, K.A., prof., dokt., retsenzent;
TSEFT, A.L., prof., dokt., retsenzent; SKOBEYEV, I.K., prof., dokt.,
retsenzent; NADOL'SKIY, A.P., kand.tekhn.nauk, retsenzent;
SERIKOV, A.P., kand.tekhn.nauk, retsenzent; BELYAYEVSKAYA, L.V., red.;
KAMAYEVA, O.M., red.izdatel'stva; ATTOPOVICH, M.K., tekhn.red.

[Metallurgy of rare metals] Metallurgiya redkikh metallov. Moskva,
Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii,
1957. 232 p.
(MIRA 11:1)

1. Kafedra metallurgii tsvetnykh metallov Irkutskogo gorno-metallurgicheskogo instituta (for Tseft, Skobeyev, Nadol'skiy, Serikov).
2. Chlen-korrespondent AN Kazakhskoy SSR (for Tseft).
(Metals, Rare and minor--Metallurgy)

Category: USSR / Physical Chemistry - Kinetics. Combustion.
Explosives. Topochemistry. Catalysis.

B-9

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30040

of the oxidic envelope of above 0.8 mm. The reaction is defined by the equation $x^n = kt$ (x is extent of oxidation, n varies from 1 to 2). At 400° a dense oxidic envelope is formed, the nature of the process is one of pure diffusion. A probable mechanism of oxidation of I is proposed, which is based on formation of intermediate compounds of the type of oxysulfides MoS_xO or $MoSO$.

Card : 2/2

-16-

BELYAYEVSKAYA, L. V.

Category: USSR / Physical Chemistry - Kinetics. Combustion.
Explosives. Topochemistry. Catalysis.

B-9

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30040

Author : Zelikman A. N., Belyayevskaya L. V.
Inst : not given
Title : Study of the Reaction of Oxidation of Molybdenite

Orig Pub: Zh. neorgan. khimii, 1956, 1, No 10, 2245-2256

Abstract: It is shown that at 400, 500 and 600° molybdenite (I) is oxidized by oxygen of the air, directly to MoO₃ (II). Intermediate inter-layer of MoO₃, which is observed only at 600°, is formed as a result of secondary interaction between I and II. Rate and regularities of the oxidation of I, at different temperatures, depend on structure of oxidic envelope. At 600° this envelope is friable, velocity of the process is determined by velocity of the chemical reaction, extent of oxidation depends linearly upon duration, velocity constant $K = 0.0085 \text{ mm/minute}$. At 500°, as oxidation proceeds, there is observed a transition from kinetic conditions, over intermediate, to diffusion conditions, which are attained with a thickness

Card : 1/2

-15-

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

137-58-5-8788

A Study of FluoSolids Roasting of Molybdenite Concentrates

are shown, together with analogous information for an industrial roasting process carried out in a rotary furnace. Extraction of Mo from cinder, produced in the course of a process of FluoSolids roasting, is 92.0-93.5 percent as compared to the 79.0-79.5 percent achieved in the industrial process. The amounts of tailings from the two processes constitute 20-22 percent and 36-38 percent, respectively.

A. P.

1. Molybdenum ores--Processing
2. Molybdenum ores--Properties

Card 2/2

BELYAYEVSKAYA, L. V.

Translation from: Referativnyy zhurnal, Metallurgiya,
AUTHORS: Zelikman, A. N., Belyayevskaya, L. V., Kreyn, O. Ye.

TITLE: A Study of FluoSolids Roasting of Molybdenite Concentrates
(izucheniye protsessov obzhiga molibdenitovykh kontsentratsiy v
kipyashchem sloye)

PERIODICAL: Tr. Tekhn. soveshchaniya po obzhigu materialov v kipyash-
chem sloye. Moscow, Metallurgizdat, 1956, pp 75-96

ABSTRACT: A presentation of results of studies of oxidation rates of
molybdenite and of its interaction with MoO_3 , as well as of the
interaction of MoO_3 with CuO , CaO , FeO , and ZnO and of the
solubility in ammonia of molybdates formed in the process. The
process of FluoSolids roasting was studied in a laboratory fur-
nace with a cross section of 400×150 mm. The following output
established: optimal temperature: $5850-5950^\circ\text{C}$; specific output
of the hearth: $1.5-1.6 \text{ t/m}^2$; extent of dust removal: 38-42 per-
cent; it was also established that the roasting process may be
carried out without fuel by means of utilizing the heat from the
reactions. Chemical composition and results of leaching of
cinder (which results from the FluoSolids roasting process)

Card

Card 1/2

ILLEGIBLE

ZELIKMAN, A.N.; BELYAYEVSKAYA, L.V.; KREYN, O.Ye.

Study of the roasting process of molybdenite concentrates in
a boiling fuel bed. TSvet. met. 29 no.8:14-22 Ag '56.

(MLRA 9:10)

(Molybdenite) (Ore dressing)

BELYAYEVSKAYA, L.V.

Investigation of reciprocal reactions of molybdates of calcium, copper, and iron with solutions of sodium carbonate. A. N. Zelikman and L. V. Belyayevskaya. *Zhur. Prikl. Khim.* 29, 11-17 (1956); cf. *C.A.* 49, 7952j, 107783j. Molybdates of Ca, Cu, and Fe were prepd. by sintering at 800-850° for 8-12 hrs. stoichiometric mixts. of the respective oxides; CaMoO_4 was also prepd. by pptn. from aq. solns. Bqull. of CaMoO_4 with Na_2CO_3 was reached slowly: 80-120, 24-48, and 10 hrs. at 25, 50, and 75°, resp. With 0.7% Na_2CO_3 some of the carbonate remained as NaHCO_3 , whereas with an initial concn. of 5% Na_2CO_3 such hydrolysis was not noted. The equil. consts., obtained graphically, were expressed by $\log K = -874.1/T + 8.124$ for pptd. CaMoO_4 , and $-839.1/T + 2.875$ for that prepd. from the oxides. The corresponding free energies were $\Delta F^\circ = -8809.9 + 15.20T$ and $-3839.7 + 13.18T$. With CuMoO_4 two reactions took place: $(x+y)\text{CuMoO}_4 + (x+2y)\text{Na}_2\text{CO}_3 + 2\text{H}_2\text{O} = x\text{CuCO}_3 \cdot y\text{Cu}(\text{OH})_2 + (x+y)\text{Na}_2\text{MoO}_4 + 2y\text{NaHCO}_3$; x and y varied, in part, as a function of the Na_2CO_3 concn., equil. was reached within 30-40 hrs., and at 50 and 75° all of the CuMoO_4 dissolved at the expense of 1.12 moles of Na_2CO_3 per mole of CuMoO_4 ; the solid phase approximated 1.6 $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$. At the expense of 0.5 mole of Na_2CO_3 per mole of molybdate the reaction was $\text{CuMoO}_4 + \text{Na}_2\text{CO}_3 = \text{CuCO}_3 + \text{Na}_2\text{MoO}_4$. The equil. consts. of the 1st reaction are $K_{25} = 33$ and $K_{75} = 83$. Bqull. with FeMoO_4 was reached within 20-30 hrs. at 75°; all of it dissolved at the expense of 1.25 moles Na_2CO_3 per mole molybdate; the solid phase consisted of FeCO_3 and $\text{Fe}(\text{OH})_3$. I. B.

BELYAYEVSKAYA, L.V.
USSR.

Formation of molybdates by the interaction of oxides of calcium, copper, and iron with molybdenum trioxide in the solid state. A. N. Zelikman and L. V. Belyayevskaya. *Zhur. Prikl. Khim.* 27, 1161-62 (1954). Thermograms of CaO recorded endothermic effects at 430 and 686°. The initial reaction of $\text{CaO} + \text{MoO}_3$ occurred at the polymorphic transformation range of CaO , 390-495°; the reaction stopped, and then went to completion at 800-686°. The x-ray pattern of the product was identical with that of Ca_2MoO_6 obtained by pptn. from an aq. soln.; only 0.3-0.6% MoO_3 was leached out by 1% NH_4 . The melting diagram of CaO-MoO_3 obtained by thermograms, microscopic examn. of etched specimens, and NH₄ leaching exhibited a eutectic at 600° with 15% CaO and 85% MoO_3 ; Cu_2MoO_6 formed at 345-610° and decomposed at 820°. Fe_2O_3 did not react with MoO_3 in the interval of 300-1000°. $\text{FeO} + \text{MoO}_3$ reacted at 390-850° forming FeMoO_4 m. congruently (in the absence of air) at 800°. I. B.

BELYAYEVSKAYA, L.V., pomoshchnik sanitarnogo vracha

Ways to increase the qualification of feldshers in republic and
province sanitary-epidemiological stations. Fel'd. i akush. 28
no.1:36-37 Ja'63. (MIRA 16:7)

1. Iz Chuvashskoy respublikanskoy sanitarno-epidemiologicheskoy
stantsii, Cheboksary, Chuvashskaya ASSR.
(MEDICAL PERSONNEL—STUDY AND TEACHING)

BELYAYEVSKAYA, L.M. (Tomsk)

Harmonic analyzer. Fiz.v shkole 22 no.6:46 N-D '62,
(Electricity--Experiments) (MIRA 16:2)

BELYAYEVA-EKZEMPLYARSKAYA, S.N. (Moskva)

Study of the processes of perceiving and evaluating time. Vop.
psikhol. 8 no. 1: 148-156 Ja-F '62. (MIRA 15:4)
(TIME PERCEPTION)

BELYAYEVA-EKZEMPLYARSKAYA, S.N. (Moskva)

Determination of personal tempo and rhythm in daily life. Vop.
psikhol. 7 no.2:61-74 Mr-Ap '61. (MIRA 14:6)
(Movement, Psychology of) (Typology (Psychology))

BELYAYEVA-EKZEMPLYARSKAYA, S.N.

Using concepts from I.P. Pavlov's physiological teachings in
psychology courses in teachers' institutes. Vop.psikhol. no.1:
100-103 Ja-F '56. (MLRA 9:5)

1. Chelyabinskiy pedagogicheskiy institut.
(Psychology--Study and Teaching)

BELYAYEVA, Z. V.; ZHILINSKAYA, M. A.

"Issledovaniye vysshey nervnoy deyatel'nosti i nekotorykh vegetativnykh reaktsiy u bliznetsov."

report submitted for 7th Intl Cong, Anthropological & ethnological Sciences,
Moscow, 3-10 Aug 64.

BELYAYEVA, Z.V.

Use of labeled atoms for the study of the resorptive ability
of capillaries in neuroses. Vop. psikh. i nevr. no.9:415-420
'62. (MIRA 17:1)

1. Institut fiziologii imeni I.P. Pavlova AN SSSR - sektor
nervnykh bolezney (zav. - prof. N.A. Kryshova).

BELYAYEVA, Z.V.

Report on the meetings of the Neurological Section of the Society
of Neuropathologists and Psychiatrists for the second half of 1958
and the first half of 1959. Vop.psikh.i nerv. 8:432-437 '62.
(MIRA 1784)

BELYAYEVA, Z.V.

State of some vegetative reactions in neurasthenia. Vop.psikh.1
nevr. no.7:350-361 '61. (MIRA 15:8)

1. Iz sektora nervnykh bolezney Instituta fiziologii imeni akademika
I.P.Pavlova AN SSSR (zav. - prof. N.A.Kryshova.)
(NEURASTHENIA) (NERVOUS SYSTEM, AUTONOMIC)

BELYAYEVA, Z.V.

Characteristics of conditioned neurological processes in neurasthenia.
Zhur. vys. nerv. deiat. 11 no.1:31-36 Ja-F '61. (MIRA 14:5)

1. Pavlov Institute of Physiology, U.S.S.R. Academy of Sciences,
Leningrad.
(CONDITIONED RESPONSE) (NEURASTHENIA)

BELYAYEVA, Z.V.

Meetings of the Neurological Section of the Society of Neuropathologists
and Psychiatrists during the first half of 1958. Sbor.trud. Len.
nauchn. ob-va nevr. i psikh. no.6:319-321 '59. (MIRA 13:12)
(NEUROPSYCHIATRY)

BELYAYEVA, Z.V. (Leningrad)

Chemical factors of nervous excitation and their relation to
autonomic disorders in peptic ulcer. Klin.med. 36 no.2:26-32
F '58. (MIRA 11:4)

1. Iz terapevticheskogo sektora (zav. - deystvitel'nyy chlen AMN
SSSR prof. M.V.Chernorutskiy [deceased]) Instituta fiziologii
imeni I.P.Pavlova AN SSSR (dir. - akad. K.M.Bykov)

(PEPTIC ULCER, blood in

acetylcholine in venous blood, relation to autonomic
disord. (Rus))

(ACETYLCHOLINE, in blood

in venous blood in peptic ulcer, relation to autonomic
disord. (Rus))

(AUTONOMIC NERVOUS SYSTEM, in various dis.

peptic ulcer, relation of disord. to acetylcholine
level in venous blood (Rus))

BELYAYEVA, Z.V.
SEMENOVA, K.N.; BELYAYEVA, Z.V. (Leningrad)

Comparative data on the therapeutic efficacy of sleep-induced
inhibition in hypertension and peptic ulcer. Klin.med. 36 no.2:
33-40 F '58. (MIRA 11:4)

1. Iz terapevticheskogo sektora Instituta fiziologii imeni I.P.
Pavlova AN SSSR (zav. - deystvitel'nyy chlen AMN SSSR prof. M.V.
Chernorutskiy)

(HYPERTENSION, ther.
sleep ther. (Rus))

(PEPTIC ULCER, ther.
same)

(SLEEP, ther. use
hypertension & peptic ulcer (Rus))

BELIAYEVA, Z.V.; SEMENOVA, K.N.

Forms of hypertension combined with ulcers. Trudy Inst. fiziol. 7:
304-309 '58.
(MIRA 12:3)

1. Terapevticheskiy sektor (zav. - M.V. Chernorutskiy [deceased]
i Gospital'naya terapevticheskaya klinika I Leningradskogo meditsin-
skogo instituta.
(HYPERTENSION) (STOMACH--ULCERS)

BELYAYEVA, Z.V.; SEMENOVA, K.N.

Characteristics of vegetative-visceral changes during different stages of hypertension. Trudy Inst. fiziol. 7:299-303 '58. (MIRA 12:3)

1. Terapevticheskiy sektor (zav. - M.V. Chernorutskiy [deceased].
Instituta fiziologii im. I.P. Pavlova AN SSSR.
(HYPERTENSION)

66411567 3 1

<p>1. The effect of protection upon the distribution of the land of the country is in the opinion of J. V. Pichon, Director General of the Colonization Service, that the effect of the law is to encourage the settlement of the land of the country by the colonists.</p>	<p>2. The effect of protection upon the distribution of the land of the country is in the opinion of J. V. Pichon, Director General of the Colonization Service, that the effect of the law is to encourage the settlement of the land of the country by the colonists.</p>
---	---

1. Szterapeuticheskoye sektsiya instituta fiziologii im. I.P. Pavlova
v.m.sosk / gosptedchaya terapevticheskaya klinika (Leningradskiy univ.)
Chlen korresp. Soobsh. Prof. M.V. Chernomirsky) i kandydatov
med. nauk im. I.P. Pavlova

BELYAYEVA, Z. V.

BELYAYEVA, Z. V.

Effect of protective inhibition on restoration of normal function of the autonomic nervous system in peptic ulcer. Trudy Inst. fiziol. 3:238-251 '54. (MLRA 8:2)

1. Terapevticheskiy sektor i gospi'tal'naya terapevticheskaya klinika 1-go Leningradskogo meditsinskogo insituta. Zaveduyushchiy M.V. Chernorutskiy.

(SINEP, therapeutic use,

peptic ulcer, restoration of normal autonomic NS funct.)

(PEPTIC ULCER, therapy,

sleep, restoration of normal autonomic NS funct.)

(AUTONOMIC NERVOUS SYSTEM, in various diseases,

peptic ulcer, restoration of normal funct. in sleep ther.)

1. BELYAYEVA, Z. V.
2. SSSR (600)
4. Nervous System, Autonomic
7. Functional state of the vegetative nervous system in peptic ulcer.
Terap. arkh. 24 No. 5, 1952
9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

BELYAYEVA, Zoya Sergeyvna, kand. yurid. nauk; PANKRATOV, Ivan Feri-
sanovich, kand. yurid. nauk; RYGALIN, A.G., red.; TARASOVA,
N.M., tekhn. red.

[State guidance of collective farms during the large-scale
building of the U.S.S.R.] Gosudarstvennoe rukovodstvo kolkho-
zami v period razvernutogo stroitel'stva kommunizma v SSSR.
Moskva, Gos.izd-vo iurid.lit-ry, 1961. 166 p. (MIRA 15:1)
(Agricultural administration)

BELYAYEVA, Zoya Sergeyevna; ZHARIKOV, Yu.G., red.; KOSAREVA, Ye.N., tekhn.red.

[Legal status of organizations in which several collective farms
cooperate] Pravovoe polozhenie mezhkolkhoznykh organizatsii.
Moskva, Gos. izd-vo iurid. lit-ry, 1958. 92 p. (MIRA 12:2)
(Collective farms)

USSR/Cultivated Plants - Fodders.

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53683

are obtained by means of intervarietal and interspecific
natural cross-pollination of the grass stands. -- V.V.
Koperzhinskiy

Card 2/2

- 75 -

USSR/Cultivated Plants - Fodders.

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53683

Author : Belyayeva, Z.S., Lupashko, I.P.

Inst :

Title : On the Methods of Working with Perennial Grasses.

Orig Pub : Seleksiya i semenovodstvo, 1957, No 3, 68-70

Abstract : In spite of the assertion of A.M. Konstantinova (Selection and Seed Growing, 1957, No 1) that artificial selection cannot constitute a basic method for selecting perennial grasses, the authors point out a number of valuable varieties raised by the method of selection at the Iygev Selection Station, Krasnoufim Station and at the Institute for Agriculture of the Southeast. Abroad, both mass and individual selection are also used widely in the selection of the perennial grasses. The majority of USA grass varieties is the result of natural selection from local grass populations. The selected varieties

Card 1/2

BELENAYOVA, E. G.

"Certain Biological Characteristics of the Development of Single-Gro Red Clover in Connection With the Cutting of the Top Stalks." Cand Agr Sci, All-Union Sci Res Inst of Fodder, Moscow, 1953. (RZhBiol, No 1, Sep 54)

SO: Sum 432, 29 Mar 55

TOKMALAYEV, S.F., dotsent [deceased]; KUZHMLEV, N.S., dotsent; OSTROVI-
TYANOV, K.V., akademik; ALEKSEYEV, A.M., dotsent; KUDROV, V.M.;
LEONT'YEV, L.A. Prinimali uchastiye: BELIAYEVA, Z.N., kand.ekon.
nauk; MRACHKOVSKAYA, I.M., kand.ekonom.nauk; RYNDINA, M.N.,
kand.ekonom.nauk; SHIRINSKIY, I.D., kand.ekonom.nauk; red.;
YUMASHEV, A.I., kand.ekonom.nauk; PROKOP'YEV, S.P., red.; NAUMOV,
K.M., tekhn.red.

[Capitalist production method] Kapitalisticheskiy sposob pro-
izvodstva. Moskva. Pt.2. 1960. 357 p. (MIRA 13:10)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya
partiynaya shkola. 2. Chlen-korrespondent Akademii nauk SSSR (for
Leont'yev).

(Economics)

KOZLOV, Genrikh Abramovich, prof.; SHIRINSKIY, Ivan Dmitriyevich, dotsent; KONAKOV, Dmitriy Maksimovich, prof.; MOROZOV, Aleksandr Vasil'yevich, dotsent; BELYAYEVA, Zoya Nikolayevna, kand.ekonom.nauk; KORYAGIN, A.G., red.; PROKOF'YEV, S.P., red.; NAUMOV, K.M., tekhn.red.

[Capitalist methods of production] Kapitalisticheskiy sposob proizvodstva. Moskva, Izd-vo VPSH i AON pri TsK KPSS. Pt.1. 1959. 237 p. (MIRA 12:6)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola. Kafedra politicheskoy ekonomii.
(Economics) (Capitalism)

IVANOV, Ye.V.; RAKINA, V.P.; DOLGINA, G.Z.; BELYAYEVA, Z.M.

Service of refractories in converters with top oxygen flow and
improvement of the procedure for the production of converter
bricks. Sbor.nauch.trud. UNIO no.5:210-233 '61.

(Converters) (Firebrick)

(MIRA 15:12)

IVANOV, Ye.V.; BEIYAYEVA, Z.M.

Magnesite converter brick made of Czechoslovak magnesite powders.
Ogneupory 25 no.11:516-520 '60. (MIRA 13:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuprov.
(Donawitz, Austria--Firebrick)

80851

Magnesite Bricks With Spinel Binding and
an Increased Temperature of Deformation
Under Load

S/131/60/000/06/09/012
B015/B007

with spinel binding at the opytnyy zavod Ukrainського nauchno-issledovatel'skogo instituta ogneporov (Testing Plant of the Ukrainian Scientific Research Institute of Fireproof Materials), the properties of which are given in Table 2. At the Zaporozhskiy ogneporny zavod (Zaporozh'ye Plant of Refractories) a further batch of magnesite bricks was produced with spinel binding. The granulation and moisture of the pastes are shown in Table 3. The scheme for inserting the bricks into the furnace is shown in Fig. 1, and the properties of the burned bricks in Table 4. Fig. 2 shows the fettling of an oxygen converter of the Krivorozhskiy metallurgicheskii zavod (Krivoy Rog Metallurgical Plant). In conclusion, the authors state that a method of producing magnesite bricks of high density, temperature of deformation under load, and thermal stability has been worked out. The use of these bricks for the fettling of basic steel-melting converters is described as inexpedient under the existing technological conditions. There are 2 figures, 4 tables, and 4 Soviet references.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneporov
(Ukrainian Scientific Research Institute of Fireproof
Materials)

Card 2/2

80851

S/131/60/000/06/09/012
B015/B007

15.2210

AUTHORS: Ivanov, Ye. V., Minskiy, Ya. M., Belyayeva, Z. M.TITLE: Magnesite Bricks With Spinel Binding and an Increased
Temperature of Deformation Under LoadPERIODICAL: Ogneupory, 1960, No. 6, pp. 281-285

TEXT: The work carried out by the Ukrainskiy institut ogneuporov (Ukrainian Institute of Fireproof Materials) showed it to be possible to increase the temperature of deformation under load by means of additions and/or the use of magnesite with an SiO_2 content of 3% and a CaO content of 2%. However, the products made from such magnesite have a low thermal stability. By the addition of alumina, spinel binding occurs during burning, whereby the thermal stability of the magnesite bricks is increased. For the purpose of producing these bricks, alumina with a grain size $< 2\mu$ was used. The samples obtained from this paste were burned at a temperature of $1,650^\circ\text{C}$. Their properties are given in Table 1. Petrographical investigations were carried out by L. A. Kuz'mina (Ref. 1). For the purpose of checking these laboratory results, a batch of magnesite bricks was produced

Card 1/2

Deformation of Magnesite Products Under Stress

SOV/151-58-12-6/10

pointed out that it would be useful to manufacture at a factory one charge of magnesite products of various types of raw material for the purpose of testing them in the heat aggregates of the iron-metallurgical industry. There are 5 tables and 5 Soviet references.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ognenuporov
(Ukrainian Scientific Research Institute of Refractories)

Card 3/3

Deformation of Magnesite Products Under Stress

SOV/131-53-12-6/10

grapher of the UNIIO (Ref 1). To check the laboratory results products were manufactured at the UNIIO research plant the properties of which in burnt state are given in table 2. Tests with the powder of the "Magnezit" factory were carried out in the UNIIO research plant to investigate the possibility of increasing the temperature at which the deformation under stress of magnesite products begins. The grain composition of the mass is given in table 3. The test bricks were burnt at 1650° and exposed to that temperature for 6 hours. The properties of the burnt products are presented in table 4. The properties of the magnesite bricks manufactured at the "Magnezit" factory and the particularly dense test bricks produced at the UNIIO factory according to the procedure of the works Chasov-Yarskiy imeni Ordzhonikidze, are compared in table 5. Conclusions: It was demonstrated that it is possible to increase the temperature at which the deformation under stress begins, up to 1800° approximately by the use of pure magnesite powder or an addition of 1% ZrO_2 , to the ordinary magnesite powders, respectively. It is

Card 2/3

15(2)

AUTHORS:

Ivanov, Ye. V., Minskiy, Ya. M.
Belyayeva, Z. M.

SOV/131-58-12-6/10

TITLE:

Deformation of Magnesite Products Under Stress (Deformatsiya pod nagruzkoj magnezitovykh izdeliy)

PERIODICAL:

Ogneupory, 1958, Nr 12, pp 558 - 561 (USSR)

ABSTRACT:

The quality of magnesite products is determined according to their physical and chemical data, particularly according to the temperature at which the deformation under stress starts. Berezhnoy has obtained products in his experiments with "rapnoye" magnesium oxide the deformation of which started under stress at a temperature of above 1700°. For common refractory magnesite products of the "Magnezit" factory this temperature lies between 1540 and 1560°. Laboratory tests were carried out to determine the influence exercised by a ZrO_2 addition upon this temperature. The composition of the charge and the properties of the burnt samples are presented in table 1. The petrographical investigation was carried out by M. Ye. Drizheruk, petro-

Card 1/3

GONSALES, A.A.; KURGANOV, V.M.; AGAFONOV, A.V.; ABAYEVA, B.T.;
POLETAYEV, V.B.; VIV'YER, A.S.; RUDOVICH, M.A.; BELYAYEVA, Z.G.;
RUTMAN, G.I.

Results of redesigning an industrial catalytic-cracking device.
Nefteper. i neftekhim. no.9:6-10 '63. (MIRA 17:8)

1. Salavatskiy kombinat i Vsesoyuznyy nauchno-issledovatel'skiy
institut po pererabotke nefi.

GAL'PERIN, B.M.; ISOFIDI, G.Ye.; KOPYLOVA, A.M.; ZHEBRAK, V.D.;
BELYAYEVA, Z.G.

Experience in desalting Arlan oil at the Salavat Combine.
Nefteper. i neftekhim. no.5:9-12 '63. (MIRA 17:8)

1. Salavatskiy kombinat.

ACCESSION NR: AT4043091

(0-42.5%, cold rolling), process duration (0-20 min.) and Al content in the electrolyte (0-80 g/l) to surface finish, as well as relating Al content in the electrolyte (0-3.0g per 100 ml) and duration (3-20 min.) to rate of stripping. It was found that the effectiveness of an electrolyte diminishes as the concentration of Al salts increases. Loss of polishing capacity is related primarily to rapid attrition of nitric acid, hence the latter was replenished periodically (5 ml/100 ml). Variation of the Al solution potential was continuously recorded and was related to finish quality, and the appearance of oscillations in the potentiometer record was found to indicate exhaustion of the solution. "O. A. Sukhoretzkiy took part in the experimental work." The results demonstrate clearly the presence and significance of oxide films in these processes. Orig. art. has: 5 graphs and 1 table.

ASSOCIATION: none.

SUBMITTED: 13Mar64

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 004

Card^{2/2}

ACCESSION NR: AT4043091

S/0000/64/000/000/0497/0504

AUTHOR: Dmitriyev, V. A., Belyayeva, Z. G.

TITLE: Chemical polishing of aluminum and alloy VD-17

SOURCE: Mezhvuzovskaya konferentsiya po anodnoy zashchite metallov ot korrozii. 1st, Kazan, 1961. Anodnaya zashchita metallov (Anodic protection of metals); doklady* konferentsii. Moscow, Izd-vo Mashinostroyeniye, 1964, 497-504

TOPIC TAGS: aluminum, alloy VD-17, aluminum electrolytic polishing, electrolyte composition effect, metal property effect, electrolytic polish quality, solution potential variation, nitric acid replenishment, oxide film, electrolytic polishing, surface finish

ABSTRACT: Sheet aluminum A1M and alloy VD-17 were polished in an electrolyte (96-98C) containing 780 ml phosphoric acid (sp. gr. 1.72), 70 ml sulfuric acid (sp. gr. 1.82), ml nitric acid (sp. gr. 1.51) and 10 g copper nitrate in order to evaluate the effects of electrolyte composition, process conditions and properties of the polished metal on finish quality. The latter was evaluated from surface brightness compared to that of a silver mirror (100%). Results are presented on several graphs relating deformation level

Cord^{1/2}

SOV/58-59-8-17759

The Effect of Ionizing Radiation on the Properties of the Copolymers of Vinyl Chloride and Vinylidene Chloride

effect. In conformity with this, the curves of the coefficient of permeability versus the dose have two extrema: a minimum and a maximum. The disorganization of the material also shows up abruptly in the elastic properties of the copolymers: after irradiation the typical diagrams of stretching, consisting of two linear sections, the second of which is horizontal, are superseded by the S-shaped curves characteristic of amorphous materials. Full conformity is established between the character of the variations of the gas-permeability of copolymers and their mechanical properties under the influence of radiation. (In-t fiz. khimii AN SSSR).

The author's résumé

Card 2/2

SOV/58-59-8-17759

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 112 (USSR)

AUTHORS: Kargin, V.A., Taubman, A.B., Yanova, L.P., Belyayeva, Z.F.

TITLE: The Effect of Ionizing Radiation on the Properties of the Copolymers of Vinyl Chloride and Vinylidene Chloride

PERIODICAL: V sb.: Deystviye ioniziruyushchikh izlucheny na neorgan. i organ. sistemy. Moscow, AN SSSR, 1958, pp. 325-332

ABSTRACT: The effect of radiation on the gas-permeability and mechanical properties of the copolymers of vinyl chloride and vinylidene chloride is investigated, and it is shown that the variations of these properties are closely connected with the variation during irradiation of the mixed amorphous-crystalline state of the copolymers and their microstructure. The presence in the copolymers of a crystallizing component which heightens micro-defectiveness, causes an augmentation of their gas-permeability in proportion to the increase in the content of this component. Irradiation also leads to an intensification of gas-permeability, but the melting of the crystalline component which it causes and the disorganization of the material in a certain region of small doses, can lead to the opposite

Card 1/2

ROZENFEL'D, I.L., doktor khimicheskikh nauk, redaktor; BELYAYEVA, Z.F.,
redaktor; IL'IN, B.M., tekhnicheskii redaktor; BELEVA, M.A.,
tekhnicheskii redaktor

[The corrosion of metals; a collection of articles translated from
foreign periodicals] Korroziia metallov; sbornik perevodov statei
iz inostrannoi periodicheskoi literatury. Pod red. I.L.Rozenfel'da.
Moskva, Izd-vo inostrannoi lit-ry. Vol.2. [New corrosion-resistant
metals] Novye korroziionnostoikie metallicheskie materialy. 1955.
171 p. [Microfilm] (MLRA 9:7)

(Corrosion and anticorrosives) (Metals)

BELYAYEVA, Z.F.

SOBOLEV, E.A., redaktor; MOGILEVSKIY, I.Ya., retsenzent; SHTEYNER, L.M.,
retsenzent. ABRAMOV, S.A., retsenzent; *BELYAYEVA, Z.F.*, redaktor;
MOLODOV, I.V., redaktor; VILLENNEVA, A.V., tekhnicheskiiy redaktor

[The knit goods industry abroad; collection of articles translated
from foreign periodicals] Trikotazhnaya promyshlennost' za rubezhom;
sbornik perevodov statei iz inostrannoi periodicheskoi literatury.
Moskva, Izd-vo inostrannoi lit-ry, 1954. 179 p. (MLRA 8:4)
(Knit goods industry)

YEVSTRATOVA, V.F., kandidat tekhnicheskikh nauk, redaktor; BELYAYE-
VA, Z.F., redaktor; VILLENVA, A.V., tekhnicheskii redaktor.

[Crude and vulcanized rubber (problems of general technology and rubber reclamation); collection of translated articles from foreign journals] Kauchuk i rezina; voprosy obshchei tekhnologii i regeneratsii reziny. Sbornik perevodov statei iz inostranoi periodicheskoi lit-ry. Moskva, Izd-vo inostranoi lit-ry, 1954.
158 p. (MLRA 8:1)

(Rubber industry)

LITVINOVA, T.P.; LYUKSHENKOV, A.G. [deceased]; Prinsipali uchastiye: YAITSKAYA, V.Ya., studentka; ZUBOVA, T.F., studentka; DENISOVA, I.D., studentka; MIRZOYEVA, Ye.Kh., studentka; OBOLENSKAYA, L.V., studentka; BELYAYEVA, Z.D., studentka; BORDOVICH, Kh.D., studentka; OKUNEVA, N.F., studentka

Determination of the amount of water retained in plant raw material in preparing infusions and decoctions. Apt. delo 10 no.5:8-11 S-0
'61. (MIRA 14:12)

1. Farmatsevticheskiy fakul'tet I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.

(BOTANY, MEDICAL)

(WATER)

(CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

Kinetics of Precipitation Hardening of
Annealed Commercial Iron

17346
604/129-60-2-1/13

and dissolving of phases in the annealed iron occur more intensely at the grain boundaries (in the inter-crystalline layer). There are 2 figures; 4 tables; and 11 references, 3 Soviet, 5 German, 3 U.S. The U.S. references are: Radavich, J., Mert, C., Journ. Applied Physics, Nr 4, Vol 22, 1951; Davenport, E., Bain, E., Trans. Am. Soc. Metals, Vol 23, 1935; Stanley, I., Journ. of Metals, Nr 10, 1949.

Card 5/5

Kinetics of Precipitation Hardening of
Annealed Commercial Iron

77583
SOV/129-60-2-1/13

low rates to room temperature. After holding at room temperature for 20,000 hr or at 150° C for 300 hr, the coercive force is almost double that of the annealed iron. (2) Heating of commercial iron at temperatures up to 350° C decreases its coercive force to the initial value due to coagulation of particles of precipitating phases. However, at the same time, especially during prolonged heating, the reverse dissolving of phases occurs which results in a considerable increase of coercive force during reheating at 150° C (50 hr). Short-time heating at 150-350° C of parts which were preliminarily held at room temperature for 20,000 hr causes reverse process, and reheating at 150° C (50 hr) also increases the coercive force considerably. (3) Heating at 250° C and holding for 4 hr stabilizes the annealed iron since only a little reverse dissolving of phases occurs. The value of coercive force will approximately equal that of iron after annealing. However, it is advisable to determine the conditions of stabilization treatment separately for each batch of iron. (4) The processes of precipitation

Card 4/5

Kinetics of Precipitation Hardening of
Annealed Commercial Iron

77588
304/129-60-2-1/13

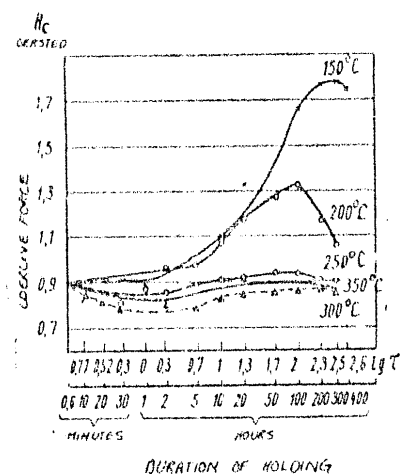


Fig. 1. Kinetics of coercive force changes of commercial iron EA during holding at 150-350°C.

Card 3/5

Kinetics of Precipitation Hardening of
Annealed Commercial Iron

77588
SOV/129-60-2-1/13

at elevated temperatures. After reviewing German and U.S. literature on the subject, the authors describe their investigation of commercial iron EA containing 0.036% C; 0.08% Mn; 0.026% S; 0.009% P; 0.2% Cu; traces of Si; 0.037% C; 0.0008% H; 0.0036% N. Telephone relay armatures were prepared from 1.8-mm-thick sheet, annealed in sealed boxes at 960° C for 3 hr, cooled with the furnace to 700° C (cooling rate 40° C/hr), and eventually aircooled. Kinetics of precipitation hardening were studied on annealed armature held in thermostats at 150-350° C (45° C) with 50° C intervals. Holding time was varied from 10 min to 400 hr, and coercive force was measured for each holding period (see Fig. 1). As seen from Fig. 1, the maximum coercive force (1.78 oersted) was double that of the annealed iron, after heating at 150° C for 300 hr. As a result of this study, the following conclusions have been made: (1) Annealed rimmed commercial iron is subjected to precipitation hardening even after cooling at

Card 2/5

BELYAYEVA, Yu I.

18.7500

77588
SOV/129-60-2-1/13

AUTHORS: Mes'kin, V. S. (Doctor of Technical Sciences, Professor), Mishkevich, R. I. (Candidate of Technical Sciences), Alalykina, A. A., Belyayeva, Yu. I. (Engineers)

TITLE: Kinetics of Precipitation Hardening of Annealed Commercial Iron

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, Nr 2, pp 2-6 (USSR)

ABSTRACT: Precipitation hardening or "thermal aging" of rimmed commercial iron has an adverse influence on several of its properties. In the parts of magnetic circuits it causes an intolerable increase of coercive force which is often observed during assembly and tests. Unfavorable distribution of precipitating phases (mainly carbides and nitrides) along grain boundaries causes considerable brittleness. The above phenomenon is particularly undesirable if the parts are intended for performance

Card 1/5

BEIMAYEVA, Ye.S.

Experimental study of the formation of nucleolus in plant cells.
Izv. SO AN SSSR no.8. Ser. biol.-med. nauk no.2:156-159 '65.
(MIRA 18:9)

1. Novosibirskiy institut tsitologii i genetiki Sibirskogo
otdeleniya AN SSSR.

BELYAYEVA, Ye.S.; VOLKOVA, L.V.

Formation of the nucleolus in plant cells. Tsitologiya. 6 no.3:
286-290 My-Je '64. (MIRA 18:9)

1. laboratoriya obshchey tsitologiy instituta tsitologii i
genetiki Sibirskogo naucheniya AN SSSR, Novosibirsk.

RIZGAUZE, I.I.; BEJAYEVA, Ya.S.

Structure of the nucleolus in early embryology. Genetika
no.3:111-114 S 1965. (RUS 38-51)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN
USSR, Novosibirsk. Submitted May 15, 1965.

BELYAYEVA, Ye.S.; KIKNADZE, I.I.

Studying the nucleolonema in the mitosis and meiosis in
Lilium. Izv. Sib. otd. AN SSSR no.7:92-97 '61. (MIRA 14:8)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN
SSSR, Novosibirsk.
(Karyokinesis) (Lilies)

BELYAYEVA, Yevgeniya Nikolayevna; SEMENOV, V.A., red.

[How to calculate short-circuit currents] Kak rasshchitat' tok korotkogo zamykan'ia. Moskva, Energiia, 1964.
118 p. (MIRA 17:12)

MAREY, A.N., doktor med.nauk; BELYAYEVA, Ye.N., kand.khimicheskikh nauk;
ZAYTSEVA, A.F., kand.med.nauk

Improvement in the quality of distilled water intended for drinking
purposes. Gig. i san. 26 no.5:93-95 My '61. (MIRA 15:4)
(WATER, DISTILLED)

Collection of Radio-Chemical and Dosimetric Methods

SOV/3589

IV. Natural Radioactive Calcium in Foodstuffs

453

V. Symbols and Abbreviations

456

AVAILABLE: Library of Congress

Card 11/11

TM/mas
6-2-60

Collection of Radio-Chemical and Dosimetric Methods

SOV/3589

4. The rapid method of determining the specific activity of radioactive substances in extended media (N.G. Gusev)	390
5. The scintillation method of determining small concentrations of alpha-active substances in aqueous solutions (E.M. Tsenter, V.I. Ivanov, M.G. Kosolapov and T.D. Tal'kovskaya)	400
6. The radiometric method of determining beta-active isotopes in mixtures (N.Ye. Tsvetayeva and M.N. Brusnetsova)	411
Recommended literature	417
Appendixes	420
I. Sanitation Regulations During Transportation, Storage and Handling of Radioactive Substances	420
II. Technique of Calculating the Total Dosage From the Combined Effect of Ionizing Radiations (N.G. Gusev)	444
III. Units of Activity and Doses (N.G. Gusev)	449

Collection of Radio-Chemical and Dosimetric Methods

SOV/3589

- | | |
|---|-----|
| 2. Individual photomonitoring of gamma-ray and thermal-neutron streams (the IFKN method) (I.B. Keirim-Markus) | 311 |
| 3. Individual dosimetric monitoring with thimble ionization chambers (the IDK method) (K.S. Kalugin and Yu.M. Shtukkenberg) | 314 |
| 4. Individual luminescence monitoring (the ILK method) (I.B. Keirim-Markus and M.S. Poroshina) | 320 |
| 5. Summary of results of individual monitoring | 324 |

Recommended literature	325
------------------------	-----

Ch. IX. Absolute and Relative Methods of Measuring the Activity of Solid and Liquid Radioactive Sources	326
---	-----

Introduction (N.G. Gusev)	326
---------------------------	-----

- | | |
|---|-----|
| 1. Corrections in measuring activity with counters (K.A. Trukhanov) | 331 |
| 2. Measuring the activity of beta-radiation sources with end-window counters (K.A. Trukhanov) | 365 |
| 3. Measuring the specific activity of thick samples (F.K. Levochkin) | 381 |

Card 9/11

Collection of Radio-Chemical and Dosimetric Methods	80V/3589
2. Calibration of instruments for measuring the contamination of surfaces by active substances (Yu.M. Shtukkenberg)	252
3. Measuring the contamination of fixed surfaces (furniture, equipment and installations) (Yu.M. Shtukkenberg)	256
4. Checking special clothing for radioactive contamination (B.M. Semenov and M. Sanzoritskiy)	266
5. Determining the radioactive contamination of the hands and body (Yu.M. Shtukkenberg)	271
6. Determining the radioactive contamination of surfaces by the smear method (B.M. Semov, Yu. Shestakov and K. Orlova)	273
Ch. VII. Methods of Measuring External Streams of X and Gamma Radiation (U.Ya. Margulis and B.M. Semov)	279
Introduction	279
1. Organization of dosimetric monitoring	283
2. Calibration of dosimeters	291
Ch. VIII. Methods of Individual Dosimetric Monitoring	299
Introduction (U.Ya. Margulis)	299
1. Individual photographic monitoring (the IFKN method) (U.Ya. Margulis and N.S. Nikitin)	302

Card 8/11

Collection of Radio-Chemical and Dosimetric Methods

SOV/3589

6. Determination of effluent air contamination due to radioactive gases and aerosols (S. Popova, B.M. Semov and Yu. Shestakov)	202
7. Measurement of the concentration of radon in the air (V.I. Kazakov and V.M. Kodyukov)	211
8. Automatic control of the radon content of air	213
9. Measurement of the concentration of active gases in the air by means of an "air wall" chamber (K.M. Bogdanov, M.I. Shan'kov, and Yu.M. Shtukkenberg)	215
10. Determination of concentration of beta-active gases in the air with the aid of a cylindrical counter placed in a chamber of fixed volume (V.V. Bochkarev)	221
Recommended literature	238
Ch. VI. Methods of Measuring the Level of Contamination of Surfaces	239
Introduction (Yu. M. Shtukkenberg)	239
1. Instruments for measuring the maximum permissible level of contamination of surfaces by active substances (Yu.M. Shtukkenberg)	245
Card 7/11	

Collection of Radio-Chemical and Dosimetric Methods	SOV/3589
7. Determination of radioactive iodine in the air (A.F. Sivolebova)	151
Recommended literature	153
Ch. V. Physical Methods of Determining Contamination of the Ambient Atmosphere Due to Radioactive Aerosols and Gases	154
Introduction(Yu.M. Shtukkenberg)	154
1. Determination of the active concentration of naturally active aerosols (G.V. Gorshkov, V.V. Zybin, V.I. Katsapov and V.M. Kozlyukov)	162
2. Determination of the radioactive dust content of air with the aid of membrane filters (F.K. Levochkin)	169
3. Determination of the concentration of active aerosols with the aid of the electric precipitator type EF-2 (Yu.M. Shtukkenberg and K.S. Kalugin)	185
4. Measurement of active aerosols with the aid of liquid filters (B.M. Semov and Yusov)	195
5. Radiation metering of beta-active gases by means of an end-window counter (L.M. Mikhaylov and A.D. Turkin)	196

Collection of Radio-Chemical and Dosimetric Methods	SOV/3589
15. Determination of radioactive phosphorus (Ye.N. Belyayeva)	87
16. Determination of polonium (B.A. Stepanov)	91
Recommended literature	95
Ch. IV. Radio-Chemical and Chemical Methods of Determining Certain Radioactive Elements in the Air	98
Introduction (M.S. Bykhovskaya and N.Yu. Tarasenko)	98
1. Taking samples of the air (M.S. Bykhovskaya and N.Yu. Tarasenko)	99
2. Methods of analysis (M.S. Bykhovskaya and N.Yu. Tarasenko)	114
3. Determination of uranium in the air (M.S. Bykhovskaya, Ye.T. Repina, V.I. Bad'in, V.P. Kuz'mina and B. Zheltov)	119
4. Determination of thorium in the air (M.S. Bykhovskaya)	139
5. Determination of radium in the presence of other alpha- active products (O.S. Andreyeva and Ye.Ye. Kovalyev, with the participation of M.M. Vvedenskaya)	142
6. Determination of polonium (V.I. Bad'in and V.P. Kuzmina)	146

Card 5/11.

Collection of Radio-Chemical and Dosimetric Methods

SOV/3589

4. Determination of radioactive strontium and barium (Ye.I. Orlova)	57
5. Determination of radioactive cesium (Ye.N. Belyayeva)	62
6. Separation and determination of radioactive cesium in drainage waters (V.A. Sysoyev and V.A. Svikul')	65
7. Determination of the total radiation of radioactive rare-earth isotopes (Ye.N. Belyayeva)	66
8. Determination of radioactive cerium (Ye.N. Belyayeva)	70
9. Determination of radioactive yttrium and of radioactive elements of the lanthanum group in drainage waters (V.A. Sysoyev and V.A. Svikul')	73
10. Determination of radioactive ruthenium (N.M. Nikitin)	76
11. Separation and determination of radioactive zirconium in drainage waters (V.A. Sysoyev and V.A. Svikul')	80
12. Separation and determination of radioactive niobium in drainage waters (V.A. Sysoyev and V.A. Svikul')	81
13. Determination of radioactive iodine in water (Ye.N. Belyayeva)	83
14. Determination of radioactive iodine in drainage waters (V.A. Sysoyev and V.A. Svikul')	86

Card 4/11

Collection of Radio-Chemical and Dosimetric Methods

SOV/3589

- | | |
|---|----|
| 3. Sanitary dosimetric inspection of underground water supplies (A.N. Marey) | 25 |
| 4. Sanitary inspection of water conduits (A.N. Marey) | 27 |
| 5. Sanitary inspection of a region (A.N. Marey) | 29 |
| 6. Organization of sanitary dosimetric inspection of foodstuffs (A.N. Marey) | 32 |
| 7. Organization and methods of determining contamination of the air by radioactive substances (A.S. Zylova) | 36 |

Recommended literature

43

Ch. III. Radio-Chemical Methods of Determining Radioactive Substances in Water, Soil, Biological Materials and Air

45

Introduction (Ye.N. Belyayeva)

45

- | | |
|--|----|
| 1. Preparation of samples of material for radioactive measurements (Ye.N. Belyayeva) | 47 |
| 2. Preparation of samples of radioactive contaminated air for measurements of activity (G.P. Yefremova) | 51 |
| 3. Preparation of samples of water, biological material, soil and benthic deposits for radio-chemical analysis (Ye.N. Belyayeva) | 53 |

Card 3/11